"VARIABLE"	"DESCRIPTION"	"UNITS"	"RANGE_LOW"	"RANGE_HIGH"	"LEGAL_VALUES"
"ACHNANTHIDIUM"	"Proportion of diatom valves in the genus Achnanthidium"	"NONE"	0	1	
"COUNTOFORDER"	"Number of non-diatom orders"	"NONE"	0		
"CYMBELLA"	"Proportion of diatom valves in the genus Cymbella"	"NONE"	0	1	
"CYMBELLA_LATO"	"Proportion of diatom valves in the genus Cymbella sensu lato"	"NONE"	0	1	
"DATE_COL"	"Date of field collection"				
"ENCYONEMA"	"Proportion of diatom valves in the genus Encyonema"	"NONE"	0	1	
"ENCYONOPSIS"	"Proportion of diatom valves in the genus Encyonopsis"	"NONE"	0	1	
"NFAMILIES_VALVE"	"Number of diatom families per valve counted"	"NONE"	0	""	
"NFAMILY_UNITS"	"Number of non-diatom families per natural unit counted"	"NONE"	0		
"NGENERA_UNITS"	"Number of non-diatom genera per natural unit counted"	"NONE"	0		
"NGENERA_VALVE"	"Number of diatom genera per valve counted"	"NONE"	0		
"NITZSCHIA"	"Proportion of diatom valves in the genus Nitzschia"	"NONE"	0	1	
"NONRSATAXA_CELLS"	"Number of NRSA taxa based on cells counted"	"NONE"	0		
"NONRSATAXA_UNITS"	"Number of NRSA taxa per natural unit counted"	"NONE"	0		
"NORDER_UNITS"	"Number of non-diatom orders per natural unit counted"	"NONE"	0		
"NORDERS_VALVE"	"Number of diatom orders per valve counted"	"NONE"	0		
"NTAXA_DIAT"	"Number of diatom taxa counted"	"NONE"	0		
"PI_DISTMMISENS"	"Proportion of diatom Individuals characteristically found at minimally disturbed sites in the Western EMAP project"	"NONE"	0	1	
"PI_L1PTLSENS"	"Proportion of diatom individuals in low nutrient taxa based on PTLSENS trait"	"NONE"	0	1	
"PI_NUTMMISENS"	"Proportion of diatom individuals in low nutrient taxa based on NUTMMISENS"	"NONE"	0	1	
"PICOL_BIOA"	"Proportion of algal biovolume as colonial taxa"	"NONE"	0	1	
"PICOL_CELA"	"Proportion of algal cells as colonial taxa"	"NONE"	0	1	
"PIFIL_BIOA"	"Proportion of algal biovolume as filamentous taxa"	"NONE"	0	1	
"PIFIL_CELA"	"Proportion of algal cells as filamentous taxa"	"NONE"	0	1	
"PIHADNT_VDIA"	"Proportion of diatom valves in highly adnate taxa"	"NONE"	0	1	
"PIHMOTD_VDIA"	"Proportion of valves of diatoms that are in taxa characterized as highly motile in sediments"	"NONE"	0	1	""

"PIMOTD_VDIA"   "Proportion of diatom valves as motile taxa" "NONE"
      0   1
"PIPLNK_BIOA"   "Proportion of algal biovolume as planktonic taxa"
      "NONE"   0   1
"PIPLNK_CELA"   "Proportion of cells of all algae that are in Taxa
characteristically found in plankton"   "NONE"   0   1
"PIPLNK_VDIA"   "Proportion of diatom valves as planktonic taxa"
      "NONE"   0   1   ""
"PISENS_ACHNANTHACEAE" "Proportion of Individuals in Taxa
characteristically found at minimally disturbed sites in the Western EMAP
project in the diatom family Achnanthaceae" "NONE"   0   1
"PISENS_DIATOMACEAE"   "Proportion of Individuals in Taxa
characteristically found at minimally disturbed sites in the Western EMAP
project in the diatom family Diatomaceae"   "NONE"   0   1
"PISENS_NAVICULACEAE" "Proportion of Individuals in Taxa
characteristically found at minimally disturbed sites in the Western EMAP
project in the diatom family Naviculaceae"   "NONE"   0   1
"PISTLK_VDIA"   "Proportion of valves of diatoms that are in taxa
characterized as highly stalked" "NONE"   0   1   ""
"PITOL_NAVICULACEAE"   "Proportion of Individuals in Taxa
characteristically found at highly disturbed sites in the Western EMAP
project in the diatom family Naviculaceae"   "NONE"   0   1
"PITOL_NITZSCHIACEAE" "Proportion of Individuals in Taxa
characteristically found at highly disturbed sites in the Western EMAP
project in the diatom family Nitzschiaceae" "NONE"   0   1
"PLANOTHIDIUM"   "Proportion of diatom valves in the genus Planothidium"
      "NONE"   0   1
"PLIVE"   "Percent live diatoms" "NONE"   0   100
"PT_DISTMMISENS" "Proportion of diatom taxa characteristically found at
minimally disturbed sites in the Western EMAP project"   "NONE"   0
      1   ""
"PT_L1PTLSENS"   "Proportion of diatom taxa in low nutrient taxa based on
PTLSENS trait"   "NONE"   0   1
"PT_NUTMMISENS"   "Proportion of diatom taxa considered low nutrient taxa
based on NUTMMISENS"   "NONE"   0   1
"PTSENS_ACHNANTHACEAE" "Proportion of taxa characteristically found at
minimally disturbed sites in the Western EMAP project in the diatom
family Achnanthaceae" "NONE"   0   1   ""
"PTSENS_DIATOMACEAE"   "Proportion of taxa characteristically found at
minimally disturbed sites in the Western EMAP project in the diatom
family Diatomaceae"   "NONE"   0   1   ""
"PTSENS_NAVICULACEAE" "Proportion of taxa characteristically found at
minimally disturbed sites in the Western EMAP project in the diatom
family Naviculaceae"   "NONE"   0   1   ""
"PTTOL_NAVICULACEAE"   "Proportion of taxa characteristically found at
highly disturbed sites in the Western EMAP project in the diatom family
Naviculaceae"   "NONE"   0   1   ""
"PTTOL_NITZSCHIACEAE" "Proportion of taxa characteristically found at
highly disturbed sites in the Western EMAP project in the diatom family
Nitzschiaceae"   "NONE"   0   1   ""
"S_N_DIAT" "Number of NRSA diatom taxa per valve counted"   "NONE"
      0   ""
"SAMPLE_CAT"   "Sample category (Primary/Duplicate/Filter blank)"

```
"SAMPLE_ID" "Sample ID number."     "NONE"                    ""
"SAMPLE_TYPE"     "Sample type"
"SHANDIV_CELLS"   "Shannon diversity of non-diatom algal assemblages based
on cells counted""NONE"        0
"SHANDIV_DIAT"    "Shannon diversity of diatom assemblages"      "NONE"
      0           ""
"SHANDIV_UNITS"   "Shannon diversity of non-diatom algal assemblages based
on natural units counted"     "NONE"        0
"SITE_ID"   "Site identification code"
"UID" "Unique site visit ID"
"VISIT_NO"  "Visit number for that year"
"YEAR"        "Sampling year"
"PERI_FIELDCOM"   "Field comment"
```